

Description of the Harmonic elimination reactor

1. Product application:

Harmonic elimination reactors, also called series reactors, are used in high and low voltage reactive power compensation systems. Generally, it is used in series with capacitors, which is capacitive at the ding frequency, and can effectively absorb and suppress the higher-order harmonics generated by capacitors, prevent the secondary harmonics from causing harm to capacitors, and avoid the capacitor device directly connected to the power grid, resulting in higher-order harmonics causing distortion to the power grid voltage, causing voltage fluctuations; At the same time with limited closing gusher; Improve the power factor of the system.





Two modes of connection of the antiharmonic reactor





Harmonic elimination reactor

2. Dimensions



D

3. Parameters

| Model | Condenser capacity (KVAR) | Rated voltage | Reactance rate | Rated current(A) | Rated inductance (mH) | Overall dimensions W*D*H(mm) | Mounting dimension A*B(mm) |
|--------------------|---------------------------------|---------------|-------------------|---------------------|-----------------------------|------------------------------------|----------------------------------|
| CKSG24-15/480-7LB | 15 | 3*480V/50Hz | 7% | 18.05 | 3.42 | 210*155*150 | 105*100 |
| CKSG24-20/480-7LB | 20 | 3*480V/50Hz | 7% | 24.06 | 2.57 | 210*155*150 | 105*100 |
| CKSG25-25/480-7LB | 25 | 3*480V/50Hz | 7% | 30.08 | 2.05 | 245*140*200 | 90*120 |
| CKSG25-30/480-7LB | 30 | 3*480V/50Hz | 7% | 36.1 | 1.71 | 245*140*200 | 90*120 |
| CKSG26-40/480-7LB | 40 | 3*480V/50Hz | 7% | 48.13 | 1.28 | 245*140*200 | 90*120 |
| CKSG27-50/480-7LB | 50 | 3*480V/50Hz | 7% | 60.17 | 1.03 | 245*165*200 | 115*140 |
| CKSG28-60/480-7LB | 60 | 3*480V/50Hz | 7% | 72.2 | 0.86 | 245*170*200 | 125*140 |
| CKSG29-70/480-7LB | 70 | 3*480V/50Hz | 7% | 84.23 | 0.73 | 245*175*200 | 130*140 |
| CKSG30-80/480-7LB | 80 | 3*480V/50Hz | 7% | 96.27 | 0.64 | 265*175*200 | 125*140 |
| CKSG31-90/480-7LB | 90 | 3*480V/50Hz | 7% | 108.3 | 0.57 | 265*185*200 | 135*140 |
| CKSG32-100/480-7LB | 100 | 3*480V/50Hz | 7% | 120.3 | 0.51 | 265*195*200 | 145*140 |
| CKSG33-30/525-14LB | 30 | 3*480V/50Hz | 14% | 33 | 4.09 | 330*180*220 | 110*140 |
| CKSG34-60/525-14LB | 60 | 3*480V/50Hz | 14% | 66 | 2.04 | 330*190*220 | 135*140 |

| Iterm | Parameters | | | |
|-------------------------------------|---|--|--|--|
| Unbalance of three-phase inductance | <u>≤3%</u> | | | |
| Overload capacity | 1.35 times rated for 1min, 1.8 times rated for 30s | | | |
| insulation resistance | > 100MΩ(DC1000V) | | | |
| Electric Strongth | Winding to core: AC3500V/50Hz/60s, leakage current \leq 5mA | | | |
| | Winding to winding: AC3500V/50Hz/60s, leakage current ≤5mA | | | |
| Insulation endurance class | F\H Class | | | |
| Type of cooling | Dry self-cooling | | | |
| temperature rise | $\leq 90 \text{K}(@1.35 \text{ times rated current})$ | | | |
| Noise | ≤65dB(power frequency, horizontal distance 1m) | | | |
| Overtamperature protection | Phase B is equipped with l pcs 135°C normally closed | | | |
| Overtemperature protection | temperature switch and connected to the terminal block | | | |



- 4. Product use environment
- 4.1 Working environment temperature: -25-40℃
- 4.2 Storage Temperature: -25-40℃
- 4.3 Working relative humidity: 95%, no condensation cream
- 4.4 Working altitude: 2000m below
- 5. Product standards
- 5.1 IEC60076-6:2007 reactor
- 5.2 GB/T1094.6-2011 reactor

6. Naming rule



| | System voltage (V) Condenser capacity(kvar) Structure number:01,02, Dry self-cooling S for three phases |
|--|---|
| | S for three phases |
| | D for single phase |
| | |

7. Precautions for installation and use

7.1 The reactor is installed in the cabinet, the ambient temperature does not exceed 40 paralysis, good ventilation conditions, if the ventilation conditions are poor, install exhaust facilities;

7.2 When the reactor is connected to the capacitor in series, it can be installed in the front or back end of the capacitor, and the low voltage series reactor is generally connected between the switch and the capacitor according to the field situation.;

7.3 Check the reactance before operation, whether the connecting bolts and mounting bolts are tight, and whether there are foreign objects on the reactor;

7.4 During the reactor maintenance, it is forbidden to change the core air gap and winding position;7.5 Reactor core and metal structural parts should be reliably connected to the ground.